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09/887,188	06/22/2001	Olivia Ruth Burgess	05222.00141	7248

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EXAMINER	
STARKS, WILBERT L	

ART UNIT	PAPER NUMBER
2129	

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/887,188	BURGESS ET AL.	
	Examiner	Art Unit	
	Wilbert L. Starks, Jr.	2129	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 May 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-89* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-89* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 U.S.C. §101

1. 35 U.S.C. §101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

the invention as disclosed in claims 1-89 is directed to non-statutory subject matter.

2. None of them is limited to practical applications. Examiner finds that *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994) controls the 35 U.S.C. §101 issues on that point for reasons made clear by the Federal Circuit in *AT&T Corp. v. Excel Communications, Inc.*, 50 USPQ2d 1447 (Fed. Cir. 1999). Specifically, the Federal Circuit held that the act of:

> ...[T]aking several abstract ideas and manipulating them together adds nothing to the basic equation. *AT&T v. Excel* at 1453 quoting *In re Warmerdam*, 33 F.3d 1354, 1360 (Fed. Cir. 1994).

Examiner finds that Applicant's "goal" references are just such abstract ideas.

3. Examiner bases his position upon guidance provided by the Federal Circuit in *In re Warmerdam*, as interpreted by *AT&T v. Excel*. This set of precedents is within the same line of cases as the *Alappat-State Street Bank* decisions and is in complete

agreement with those decisions. *Warmerdam* is consistent with *State Street*'s holding that:

> Today we hold that *the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price*, constitutes a practical application of a mathematical algorithm, formula, or calculation because it produces 'a useful, concrete and tangible result" -- *a final share price momentarily fixed for recording purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.* (emphasis added) *State Street Bank* at 1601.

4. True enough, that case later eliminated the "business method exception" in order to show that business methods were not per se nonstatutory, but the court clearly *did not* go so far as to make business methods *per se statutory*. A plain reading of the excerpt above shows that the Court was *very specific* in its definition of the new *practical application*. It would have been much easier for the court to say that "business methods were per se statutory" than it was to define the practical application in the case as "...the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price..."

5. The court was being very specific.

6. Additionally, the court was also careful to specify that the "useful, concrete and tangible result" it found was "a final share price momentarily fixed for recording purposes and even accepted and relied upon by regulatory authorities and in subsequent trades." (i.e. the trading activity is the further practical use of the real world

monetary data beyond the transformation in the computer – i.e., "post-processing activity".)

7. Applicant cites no such specific results to define a useful, concrete and tangible result. Neither does Applicant specify the associated practical application with the kind of specificity the Federal Circuit used.

8. Furthermore, in the case *In re Warmerdam*, the Federal Circuit held that:

> ...[T]he dispositive issue for assessing compliance with Section 101 in this case is whether the claim is for a process that goes beyond simply manipulating 'abstract ideas' or 'natural phenomena' ... As the Supreme Court has made clear, '[a]n idea of itself is not patentable, ... *taking several abstract ideas and manipulating them together adds nothing to the basic equation*. In re Warmerdam 31 USPQ2d at 1759 (emphasis added).

9. Since the Federal Circuit held in *Warmerdam* that this is the "dispositive issue" when it judged the usefulness, concreteness, and tangibility of the claim limitations in that case, Examiner in the present case views this holding as the dispositive issue for determining whether a claim is "useful, concrete, and tangible" in similar cases. Accordingly, the Examiner finds that Applicant manipulated a set of abstract "goals" to solve purely algorithmic problems in the abstract (i.e., what *kind* of "goal" is used? Heart rhythm data? Algebraic equations? Boolean logic problems? Fuzzy logic algorithms? Probabilistic word problems? Philosophical ideas? Even vague expressions, about which even reasonable persons could differ as to their meaning? Combinations thereof?) Clearly, a claim for manipulation of "goals" is provably even more abstract (and thereby less limited in practical application) than pure "mathematical algorithms" which the Supreme Court has held are per se nonstatutory – in fact, it *includes* the expression of nonstatutory mathematical algorithms.

10. Since the claims are not limited to exclude such abstractions, the broadest reasonable interpretation of the claim limitations includes such abstractions. Therefore, the claims are impermissibly abstract under 35 U.S.C. §101 doctrine.

11. Since *Warmerdam* is within the *Alappat-State Street Bank* line of cases, it takes the same view of "useful, concrete, and tangible" the Federal Circuit applied in *State Street Bank*. Therefore, under *State Street Bank*, this could not be a "useful, concrete and tangible result". There is only manipulation of abstract ideas.

12. The Federal Circuit validated the use of *Warmerdam* in its more recent *AT&T Corp. v. Excel Communications, Inc.* decision. The Court reminded us that:

> Finally, **the decision in In re Warmerdam**, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994) **is not to the contrary**. *** The court found that the claimed process did nothing more than manipulate basic mathematical constructs and concluded that **'taking several abstract ideas and manipulating them together adds nothing to the basic equation'**; hence, the court held that the claims were properly rejected under §101 ... Whether one agrees with the court's conclusion on the facts, the **holding** of the case is a straightforward application of the basic principle that mere laws of nature, natural phenomena, and abstract ideas are not within the categories of inventions or discoveries that may be patented under §101. (emphasis added) AT&T Corp. v. Excel Communications, Inc., 50 USPQ2d 1447, 1453 (Fed. Cir. 1999).

13. Remember that in *In re Warmerdam*, the Court said that this was the dispositive issue to be considered. In the *AT&T* decision cited above, the Court reaffirms that this is the issue for assessing the "useful, concrete, and tangible" nature of a set of claims under 101 doctrine. Accordingly, Examiner views the *Warmerdam* holding as the dispositive issue in this analogous case.

14. The fact that the invention is merely the manipulation of *abstract ideas* is clear. The data referred to by Applicant's word "goal" is simply an abstract construct that does not provide limitations in the claims to the transformation of real world data (such as monetary data or heart rhythm data) by some disclosed process. Consequently, the necessary conclusion under *AT&T, State Street* and *Warmerdam,* is straightforward and

clear. The claims take several abstract ideas (i.e., "goals" in the abstract) and manipulate them together adding nothing to the basic equation. Claims 1-89 are, thereby, rejected under 35 U.S.C. §101.

Claim Rejections - 35 U.S.C. §112

The following is a quotation of the first paragraph of 35 U.S.C. §112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-89 are rejected under 35 U.S.C. §112, first paragraph because current case law (and accordingly, the MPEP) require such a rejection if a §101 rejection is given because when Applicant has not in fact disclosed the practical application for the invention, as a matter of law there is no way Applicant could have disclosed *how* to practice the *undisclosed* practical application. This is how the MPEP puts it:

> ("The how to use prong of section 112 **incorporates as a matter of law** the requirement of 35 U.S.C. §101 that the specification disclose as a matter of fact a practical utility for the invention.... If the application fails as a matter of fact to satisfy 35 U.S.C. §101, then the application **also fails as a matter of law** to enable one of ordinary skill in the art to use the invention under 35 U.S.C. §112."); In re Kirk, 376 F.2d 936, 942, 153 USPQ 48, 53 (CCPA 1967) ("Necessarily, compliance with § 112 requires a description of how to use presently useful inventions, **otherwise an applicant would anomalously be required to teach how to use a useless invention.**") See, MPEP 2107.01(IV), quoting In re Kirk (emphasis added).

Therefore, claims 1-89 are rejected on this basis.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 10, 19, 28, 36, 45, 54, 63, 72, and 81 are rejected under 35 U.S.C. 102(b) as being anticipated by Bloom et al., (U.S. Patent Number 5,597,312 A; dated 28 JAN 1997; class 434; subclass 362) discloses an intelligent tutoring method and system. Specifically:

Claim 1

Claim 1's " (a) receiving an indicia representative of a store goal, the indicia identifying training that is associated with the store goal;" is anticipated by Bloom et al., col. 6, lines 40-67, where it recites:

> In such a fashion, the method and system of the present invention are consistent with several features of the minimalist approach to training and learning. Specifically, the present invention employs task-based training, and allow trainees to start immediately on meaningful and realistic job tasks in any order. Moreover, the present invention keeps the amount of passive instruction to a minimum. Only prerequisite information that cannot be conveyed to the trainee during active contact rehearsal is conveyed through guide (92). In addition, information in guide (92) is presented in interactive, multimedia formats to increase the level of involvement by the trainee. Finally, the present invention contains explicit training on errors and error recovery to support the recognition and recovery from error, thereby making the learning materials more robust and complete, and training learners in error recovery skills.

Claim 1's " (b) integrating retail information that provides assistance with achieving the store goal;" is anticipated by Bloom et al., col. 15, lines 30-60, where it recites:

> Still referring to FIG. 7, the discourse grammar (144) then maps onto sets of situation-action rules (146). Situation-action rules (146) are the individual transitions in the discourse grammar (144) describing actions to be taken in response to given situations. Situations can be either customer statements, requests, or questions, or service order software output or configurations. Actions can be either responses by the CSR to customer statements or to application information, commands or data entered into the application by the CSR, or actions focused around information processing and decision making, as previously described.
>
> The next level of hierarchy (140) is conversations (148). Conversations (148) are syntactically correct sequences through discourse grammar (144) made up of sequences of situation-action rules (146). Each abstract situation and action in a conversation sequence is instantiated with specific information in the form of application commands or information, or text with accompanying audio. Conversations (148) are grouped together to reflect different types of scenarios that could occur between a caller and a CSR. Branches within conversations (148) are based on customer information. Situation-action rules (146) that are conceptually related map onto discourse grammar (144) nodes. These nodes are reusable portions of conversations that can appear in several different conversation scenarios. Ultimately, a specification of each of these layers defines a course, such as VMS. A course has a title, list of topics, a list of grammars, a list of activities (situations or actions), a list of conversations (subsuming text, audio, and application communication) and a list of application specifications.

It is further anticipated by Bloom et al., col. 16, lines 15-30, where it recites:

> Referring now to FIG. 8, an example of a subset of the discourse grammar representation is shown, denoted generally by reference numeral 160. Conversations or scenarios can be constructed by combining all of the individual nodes along any one branch (from left to right) of the discourse grammar. For example, the scenario of servicing a customer's direct request for VMS (162) could involve some or all of the following: opening (164), legal guidelines (166), check availability (168), verify class of service (170), verify feature compatibility (172), ring options (174), due date (176), and close contact (178). The specific sub-topics employed would depend upon "customer" responses or

> constraints. That is, if the service is not available in the customer's area, the scenario would contain only opening (164), legal guidelines (166), check availability (168), and close contact (178).

It is further anticipated by Bloom et al., col. 17, lines 25-45, where it recites:

> An application description preferably has a name, a list of screen definitions, the initial screen of the application, and a description of how to jump from screen-to-screen. An application screen describes one screen that has a name and a list of fields that make up that screen. The screen item describes an item of the screen and has a name by which it can be referred, a position and a size within the screen, and a default value. The value can be defined as a string or dynamically by a function. For example, a field showing the date or time would refer to a function, which supplies those strings. A screen label is a screen item which is not editable by the user. A screen field is a screen item which is editable by the user. An application field entry defines how items in the application should be filled out. This structure is to communicate commands when running a conversation, and to define how conversation specifics should be filled in. A screen sequence defines a sequence in which the screens are shown, and has a predicate which is applied to any conversation name to determine whether the sequence is appropriate for that conversation.

Claim 1's " (c) monitoring progress of a student toward the store goal; and" is anticipated by Bloom et al., col. 7, lines 20-30, where it recites:

> Referring now to FIGS. 4 and 5, the function of exercise customer interaction skills (94) employs rehearsing conversations (116) or examining contact flow (118) as two different ways of rehearsing customer contacts. During rehearse conversation (116), tutor (112) supports trainees working through customer contacts representative of those faced on the job. As trainees work through the contacts, immediate feedback and hints (120) are available when trainees have difficulties. Moreover, at the end of each contact rehearsal, trainees are provided summary feedback (122) including assessment of their current knowledge state.

Claim 1's "(d) providing feedback assisting the student in accomplishing the store goal." is anticipated by Bloom et al., col. 7, lines 20-30, where it recites:

> Referring now to FIGS. 4 and 5, the function of exercise customer interaction skills (94) employs rehearsing conversations (116) or examining contact flow (118) as two different ways of rehearsing customer contacts. During rehearse conversation (116), tutor (112) supports trainees working through customer contacts representative of those faced on the job. As trainees work through the contacts, immediate feedback and hints (120) are available when trainees have difficulties. Moreover, at the end of each contact rehearsal, trainees are provided summary feedback (122) including assessment of their current knowledge state.

It is further anticipated by Bloom et al., col. 23, lines 30-45, where it recites:

> At the end of each contact rehearsal or examination, the method and system of the present invention provide for several different types of feedback, selectable by the trainee. This approach includes a view summary feedback type where trainees can view a brief, digitized video of an expert CSR summarizing the salient points and features of the previous contact. A repeat conversation feedback type allows the trainee to redo the previous contact using the same or different instruction style settings for dialog and application interactions. With a selective review feedback type, the trainee can listen to all or part of the contact just practiced, reviewing and comparing their recorded responses to an expert recorded response. Finally, with a summarized progress feedback type, the trainee can view an assessment, including any changes, of the trainee's proficiency with regard to various topics.

Claim 10

Claim 10's "(a) a processor;" is anticipated by Bloom et al., col. 2, lines 50-55, where it recites:

> Accordingly, it is the principle object of the present invention to provide an improved **computer based** intelligent tutoring method and system.

Claim 10's "(b) a memory that stores information under the control of the processor;" is anticipated by Bloom et al., col. 2, lines 50-55, where it recites:

> Accordingly, it is the principle object of the present invention to provide an improved **computer based** intelligent tutoring method and system.

Claim 10's "(c) logic that receives indicia representative of a store goal, the indicia identifying training that is associated with the store goal;" is anticipated by Bloom et al., col. 6, lines 40-67, where it recites:

> In such a fashion, the method and system of the present invention are consistent with several features of the minimalist approach to training and learning. Specifically, the present invention employs task-based training, and allow trainees to start immediately on meaningful and realistic job tasks in any order. Moreover, the present invention keeps the amount of passive instruction to a minimum. Only prerequisite information that cannot be conveyed to the trainee during active contact rehearsal is conveyed through guide (92). In addition, information in guide (92) is presented in interactive, multimedia formats to increase the level of involvement by the trainee. Finally, the present invention contains explicit training on errors and error recovery to support the recognition and recovery from error, thereby making the learning materials more robust and complete, and training learners in error recovery skills.

Claim 10's "(d) logic that integrates retail information that provides assistance with achieving the store goal; and" is anticipated by Bloom et al., col. 15, lines 30-60, where it recites:

> Still referring to FIG. 7, the discourse grammar (144) then maps onto sets of situation-action rules (146). Situation-action rules (146) are the individual transitions in the discourse grammar (144) describing actions to be taken in response to given situations. Situations can be either customer statements, requests, or questions, or service order software output or configurations. Actions can be either responses by the CSR to customer statements or to application information, commands or data entered into the application by the CSR, or actions focused around information processing and decision making, as previously described.

> The next level of hierarchy (140) is conversations (148). Conversations (148) are syntactically correct sequences through discourse grammar (144) made up of sequences of situation-action rules (146). Each abstract situation and action in a conversation sequence is instantiated with specific information in the form of application commands or information, or text with accompanying audio. Conversations (148) are grouped together to reflect different types of scenarios that could occur between a caller and a CSR. Branches within conversations (148) are based on customer information. Situation-action rules (146) that are conceptually related map onto discourse grammar (144) nodes. These nodes are reusable portions of conversations that can appear in several different conversation scenarios. Ultimately, a specification of each of these layers defines a course, such as VMS. A course has a title, list of topics, a list of grammars, a list of activities (situations or actions), a list of conversations (subsuming text, audio, and application communication) and a list of application specifications.

It is further anticipated by Bloom et al., col. 16, lines 15-30, where it recites:

> Referring now to FIG. 8, an example of a subset of the discourse grammar representation is shown, denoted generally by reference numeral 160. Conversations or scenarios can be constructed by combining all of the individual nodes along any one branch (from left to right) of the discourse grammar. For example, the scenario of servicing a customer's direct request for VMS (162) could involve some or all of the following: opening (164), legal guidelines (166), check availability (168), verify class of service (170), verify feature compatibility (172), ring options (174), due date (176), and close contact (178). The specific sub-topics employed would depend upon "customer" responses or constraints. That is, if the service is not available in the customer's area, the scenario would contain only opening (164), legal guidelines (166), check availability (168), and close contact (178).

It is further anticipated by Bloom et al., col. 17, lines 25-45, where it recites:

> An application description preferably has a name, a list of screen definitions, the initial screen of the application, and a description of how to jump from screen-to-screen. An application screen describes one screen that has a name and a list of fields that make up that screen. The screen item describes an item of the screen and has a name by which it can be referred, a position and a size within the screen, and a default value. The value can be defined as a string or dynamically by a function. For example, a field showing the date or time would refer to a function, which supplies those strings. A screen label is a screen item which is not editable by the user. A screen field is a screen item which is editable

> by the user. An application field entry defines how items in the application should be filled out. This structure is to communicate commands when running a conversation, and to define how conversation specifics should be filled in. A screen sequence defines a sequence in which the screens are shown, and has a predicate which is applied to any conversation name to determine whether the sequence is appropriate for that conversation.

Claim 10's " (e) logic that monitors progress of a student toward the store goal and provides feedback that assists the student in accomplishing the store goal." is anticipated by Bloom et al., col. 7, lines 20-30, where it recites:

> Referring now to FIGS. 4 and 5, the function of exercise customer interaction skills (94) employs rehearsing conversations (116) or examining contact flow (118) as two different ways of rehearsing customer contacts. During rehearse conversation (116), tutor (112) supports trainees working through customer contacts representative of those faced on the job. As trainees work through the contacts, immediate feedback and hints (120) are available when trainees have difficulties. Moreover, at the end of each contact rehearsal, trainees are provided summary feedback (122) including assessment of their current knowledge state.

Claim 19

Claim 19's "(a) receiving information indicative of a goal,-training that is associated with the goal;" is anticipated by Bloom et al., col. 6, lines 40-67, where it recites:

> In such a fashion, the method and system of the present invention are consistent with several features of the minimalist approach to training and learning. Specifically, the present invention employs task-based training, and allow trainees to start immediately on meaningful and realistic job tasks in any order. Moreover, the present invention keeps the amount of passive instruction to a minimum. Only prerequisite information that cannot be conveyed to the trainee during active contact rehearsal is conveyed through guide (92). In addition, information in guide (92) is presented in interactive, multimedia formats to increase the level of involvement by the trainee. Finally, the present invention

> contains explicit training on errors and error recovery to support the recognition and recovery from error, thereby making the learning materials more robust and complete, and training learners in error recovery skills.

Claim 19's "(b) integrating information that motivates accomplishment of the goal; and" is anticipated by Bloom et al., col. 15, lines 30-60, where it recites:

> Still referring to FIG. 7, the discourse grammar (144) then maps onto sets of situation-action rules (146). Situation-action rules (146) are the individual transitions in the discourse grammar (144) describing actions to be taken in response to given situations. Situations can be either customer statements, requests, or questions, or service order software output or configurations. Actions can be either responses by the CSR to customer statements or to application information, commands or data entered into the application by the CSR, or actions focused around information processing and decision making, as previously described.
>
> The next level of hierarchy (140) is conversations (148). Conversations (148) are syntactically correct sequences through discourse grammar (144) made up of sequences of situation-action rules (146). Each abstract situation and action in a conversation sequence is instantiated with specific information in the form of application commands or information, or text with accompanying audio. Conversations (148) are grouped together to reflect different types of scenarios that could occur between a caller and a CSR. Branches within conversations (148) are based on customer information. Situation-action rules (146) that are conceptually related map onto discourse grammar (144) nodes. These nodes are reusable portions of conversations that can appear in several different conversation scenarios. Ultimately, a specification of each of these layers defines a course, such as VMS. A course has a title, list of topics, a list of grammars, a list of activities (situations or actions), a list of conversations (subsuming text, audio, and application communication) and a list of application specifications.

It is further anticipated by Bloom et al., col. 16, lines 15-30, where it recites:

> Referring now to FIG. 8, an example of a subset of the discourse grammar representation is shown, denoted generally by reference numeral 160. Conversations or scenarios can be constructed by combining all of the individual nodes along any one branch (from left to right) of the discourse grammar. For example, the scenario of servicing a customer's direct request for VMS (162) could involve some or all of

> the following: opening (164), legal guidelines (166), check availability (168), verify class of service (170), verify feature compatibility (172), ring options (174), due date (176), and close contact (178). The specific sub-topics employed would depend upon "customer" responses or constraints. That is, if the service is not available in the customer's area, the scenario would contain only opening (164), legal guidelines (166), check availability (168), and close contact (178).

It is further anticipated by Bloom et al., col. 17, lines 25-45, where it recites:

> An application description preferably has a name, a list of screen definitions, the initial screen of the application, and a description of how to jump from screen-to-screen. An application screen describes one screen that has a name and a list of fields that make up that screen. The screen item describes an item of the screen and has a name by which it can be referred, a position and a size within the screen, and a default value. The value can be defined as a string or dynamically by a function. For example, a field showing the date or time would refer to a function, which supplies those strings. A screen label is a screen item which is not editable by the user. A screen field is a screen item which is editable by the user. An application field entry defines how items in the application should be filled out. This structure is to communicate commands when running a conversation, and to define how conversation specifics should be filled in. A screen sequence defines a sequence in which the screens are shown, and has a predicate which is applied to any conversation name to determine whether the sequence is appropriate for that conversation.

Claim 19's "(c) evaluating the progress toward the goal and providing feedback that further motivates accomplishment of the goal." is anticipated by Bloom et al., col. 7, lines 20-30, where it recites:

> Referring now to FIGS. 4 and 5, the function of exercise customer interaction skills (94) employs rehearsing conversations (116) or examining contact flow (118) as two different ways of rehearsing customer contacts. During rehearse conversation (116), tutor (112) supports trainees working through customer contacts representative of those faced on the job. As trainees work through the contacts, immediate feedback and hints (120) are available when trainees have difficulties. Moreover, at the end of each contact rehearsal, trainees are provided summary feedback (122) including assessment of their current knowledge state.

It is further anticipated by Bloom et al., col. 23, lines 30-45, where it recites:

> At the end of each contact rehearsal or examination, the method and system of the present invention provide for several different types of feedback, selectable by the trainee. This approach includes a view summary feedback type where trainees can view a brief, digitized video of an expert CSR summarizing the salient points and features of the previous contact. A repeat conversation feedback type allows the trainee to redo the previous contact using the same or different instruction style settings for dialog and application interactions. With a selective review feedback type, the trainee can listen to all or part of the contact just practiced, reviewing and comparing their recorded responses to an expert recorded response. Finally, with a summarized progress feedback type, the trainee can view an assessment, including any changes, of the trainee's proficiency with regard to various topics.

Claim 28

Claim 28's "(a) a processor;" is anticipated by Bloom et al., col. 2, lines 50-55, where it recites:

> Accordingly, it is the principle object of the present invention to provide an improved **computer based** intelligent tutoring method and system.

Claim 28's "(b) a memory that stores information under the control of the processor;" is anticipated by Bloom et al., col. 2, lines 50-55, where it recites:

> Accordingly, it is the principle object of the present invention to provide an improved **computer based** intelligent tutoring method and system.

Claim 28's "(c) logic that receives information indicative of a goal, the information identifying training that is associated with the goal;" is anticipated by Bloom et al., col. 6, lines 40-67, where it recites:

> In such a fashion, the method and system of the present invention are consistent with several features of the minimalist approach to training and learning. Specifically, the present invention employs task-based training, and allow trainees to start immediately on meaningful and realistic job tasks in any order. Moreover, the present invention keeps the amount of passive instruction to a minimum. Only prerequisite information that cannot be conveyed to the trainee during active contact rehearsal is conveyed through guide (92). In addition, information in guide (92) is presented in interactive, multimedia formats to increase the level of involvement by the trainee. Finally, the present invention contains explicit training on errors and error recovery to support the recognition and recovery from error, thereby making the learning materials more robust and complete, and training learners in error recovery skills.

Claim 28's "(d) logic that integrates information that motivates accomplishment of the goal" is anticipated by Bloom et al., col. 15, lines 30-60, where it recites:

> Still referring to FIG. 7, the discourse grammar (144) then maps onto sets of situation-action rules (146). Situation-action rules (146) are the individual transitions in the discourse grammar (144) describing actions to be taken in response to given situations. Situations can be either customer statements, requests, or questions, or service order software output or configurations. Actions can be either responses by the CSR to customer statements or to application information, commands or data entered into the application by the CSR, or actions focused around information processing and decision making, as previously described.
>
> The next level of hierarchy (140) is conversations (148). Conversations (148) are syntactically correct sequences through discourse grammar (144) made up of sequences of situation-action rules (146). Each abstract situation and action in a conversation sequence is instantiated with specific information in the form of application commands or information, or text with accompanying audio. Conversations (148) are grouped together to reflect different types of scenarios that could occur between a caller and a CSR. Branches within conversations (148) are based on customer information. Situation-action rules (146) that are conceptually related map onto discourse grammar (144) nodes. These

> nodes are reusable portions of conversations that can appear in several different conversation scenarios. Ultimately, a specification of each of these layers defines a course, such as VMS. A course has a title, list of topics, a list of grammars, a list of activities (situations or actions), a list of conversations (subsuming text, audio, and application communication) and a list of application specifications.

It is further anticipated by Bloom et al., col. 16, lines 15-30, where it recites:

> Referring now to FIG. 8, an example of a subset of the discourse grammar representation is shown, denoted generally by reference numeral 160. Conversations or scenarios can be constructed by combining all of the individual nodes along any one branch (from left to right) of the discourse grammar. For example, the scenario of servicing a customer's direct request for VMS (162) could involve some or all of the following: opening (164), legal guidelines (166), check availability (168), verify class of service (170), verify feature compatibility (172), ring options (174), due date (176), and close contact (178). The specific sub-topics employed would depend upon "customer" responses or constraints. That is, if the service is not available in the customer's area, the scenario would contain only opening (164), legal guidelines (166), check availability (168), and close contact (178).

It is further anticipated by Bloom et al., col. 17, lines 25-45, where it recites:

> An application description preferably has a name, a list of screen definitions, the initial screen of the application, and a description of how to jump from screen-to-screen. An application screen describes one screen that has a name and a list of fields that make up that screen. The screen item describes an item of the screen and has a name by which it can be referred, a position and a size within the screen, and a default value. The value can be defined as a string or dynamically by a function. For example, a field showing the date or time would refer to a function, which supplies those strings. A screen label is a screen item which is not editable by the user. A screen field is a screen item which is editable by the user. An application field entry defines how items in the application should be filled out. This structure is to communicate commands when running a conversation, and to define how conversation specifics should be filled in. A screen sequence defines a sequence in which the screens are shown, and has a predicate which is applied to any conversation name to determine whether the sequence is appropriate for that conversation.

Claim 28's "(e) logic that evaluates the progress toward the goal and provides feedback that further motivates accomplishment of the goal." is anticipated by Bloom et al., col. 7, lines 20-30, where it recites:

> Referring now to FIGS. 4 and 5, the function of exercise customer interaction skills (94) employs rehearsing conversations (116) or examining contact flow (118) as two different ways of rehearsing customer contacts. During rehearse conversation (116), tutor (112) supports trainees working through customer contacts representative of those faced on the job. As trainees work through the contacts, immediate feedback and hints (120) are available when trainees have difficulties. Moreover, at the end of each contact rehearsal, trainees are provided summary feedback (122) including assessment of their current knowledge state.

It is further anticipated by Bloom et al., col. 23, lines 30-45, where it recites:

> At the end of each contact rehearsal or examination, the method and system of the present invention provide for several different types of feedback, selectable by the trainee. This approach includes a view summary feedback type where trainees can view a brief, digitized video of an expert CSR summarizing the salient points and features of the previous contact. A repeat conversation feedback type allows the trainee to redo the previous contact using the same or different instruction style settings for dialog and application interactions. With a selective review feedback type, the trainee can listen to all or part of the contact just practiced, reviewing and comparing their recorded responses to an expert recorded response. Finally, with a summarized progress feedback type, the trainee can view an assessment, including any changes, of the trainee's proficiency with regard to various topics.

Claim 36

Claim 36's "(a) presenting information indicative of a goal, the information identifying training that is associated with the goal;" is anticipated by Bloom et al., col. 6, lines 40-67, where it recites:

> In such a fashion, the method and system of the present invention are consistent with several features of the minimalist approach to training and learning. Specifically, the present invention employs task-based training, and allow trainees to start immediately on meaningful and realistic job tasks in any order. Moreover, the present invention keeps the amount of passive instruction to a minimum. Only prerequisite information that cannot be conveyed to the trainee during active contact rehearsal is conveyed through guide (92). In addition, information in guide (92) is presented in interactive, multimedia formats to increase the level of involvement by the trainee. Finally, the present invention contains explicit training on errors and error recovery to support the recognition and recovery from error, thereby making the learning materials more robust and complete, and training learners in error recovery skills.

Claim 36's "(b) integrating information that motivates accomplishment of the goal" is anticipated by Bloom et al., col. 15, lines 30-60, where it recites:

> Still referring to FIG. 7, the discourse grammar (144) then maps onto sets of situation-action rules (146). Situation-action rules (146) are the individual transitions in the discourse grammar (144) describing actions to be taken in response to given situations. Situations can be either customer statements, requests, or questions, or service order software output or configurations. Actions can be either responses by the CSR to customer statements or to application information, commands or data entered into the application by the CSR, or actions focused around information processing and decision making, as previously described.
>
> The next level of hierarchy (140) is conversations (148). Conversations (148) are syntactically correct sequences through discourse grammar (144) made up of sequences of situation-action rules (146). Each abstract situation and action in a conversation sequence is instantiated with specific information in the form of application commands or information, or text with accompanying audio. Conversations (148) are grouped together to reflect different types of scenarios that could occur between a caller and a CSR. Branches within conversations (148) are based on customer information. Situation-action rules (146) that are conceptually related map onto discourse grammar (144) nodes. These nodes are reusable portions of conversations that can appear in several different conversation scenarios. Ultimately, a specification of each of these layers defines a course, such as VMS. A course has a title, list of topics, a list of grammars, a list of activities (situations or actions), a list of conversations (subsuming text, audio, and application communication) and a list of application specifications.

It is further anticipated by Bloom et al., col. 16, lines 15-30, where it recites:

> Referring now to FIG. 8, an example of a subset of the discourse grammar representation is shown, denoted generally by reference numeral 160. Conversations or scenarios can be constructed by combining all of the individual nodes along any one branch (from left to right) of the discourse grammar. For example, the scenario of servicing a customer's direct request for VMS (162) could involve some or all of the following: opening (164), legal guidelines (166), check availability (168), verify class of service (170), verify feature compatibility (172), ring options (174), due date (176), and close contact (178). The specific sub-topics employed would depend upon "customer" responses or constraints. That is, if the service is not available in the customer's area, the scenario would contain only opening (164), legal guidelines (166), check availability (168), and close contact (178).

It is further anticipated by Bloom et al., col. 17, lines 25-45, where it recites:

> An application description preferably has a name, a list of screen definitions, the initial screen of the application, and a description of how to jump from screen-to-screen. An application screen describes one screen that has a name and a list of fields that make up that screen. The screen item describes an item of the screen and has a name by which it can be referred, a position and a size within the screen, and a default value. The value can be defined as a string or dynamically by a function. For example, a field showing the date or time would refer to a function, which supplies those strings. A screen label is a screen item which is not editable by the user. A screen field is a screen item which is editable by the user. An application field entry defines how items in the application should be filled out. This structure is to communicate commands when running a conversation, and to define how conversation specifics should be filled in. A screen sequence defines a sequence in which the screens are shown, and has a predicate which is applied to any conversation name to determine whether the sequence is appropriate for that conversation.

Claim 36's "(c) querying a user for answers to one or more questions based on one or more learning objectives of the presentation using a simulated human conversation; and" is anticipated by Bloom et al., col. 16, lines 59-67, where it recites:

> In the situation-action rules (146) level, an activity preferably has a name by which it can be referenced within an RTN, a text that describes the activity, the grammars within which it is used, the topics that it relates to, a comment from the author of the material, instances from the conversations shown as text, instances from the conversations referring to audio files, and a reference to the student's encounters with this activity. An action has feedback which can be presented to the student as a hint, and false responses which are actions to present as false distractors when giving a **multiple choice question**. An application action is an action describing interaction with application software.

Claim 36's "(d) monitoring progress toward the goal and providing feedback that further motivates accomplishment of the goal." is anticipated by Bloom et al., col. 7, lines 20-30, where it recites:

> Referring now to FIGS. 4 and 5, the function of exercise customer interaction skills (94) employs rehearsing conversations (116) or examining contact flow (118) as two different ways of rehearsing customer contacts. During rehearse conversation (116), tutor (112) supports trainees working through customer contacts representative of those faced on the job. As trainees work through the contacts, immediate feedback and hints (120) are available when trainees have difficulties. Moreover, at the end of each contact rehearsal, trainees are provided summary feedback (122) including assessment of their current knowledge state.

Claim 45

Claim 45's "(a) a processor;" is anticipated by Bloom et al., col. 2, lines 50-55, where it recites:

> Accordingly, it is the principle object of the present invention to provide an improved **computer based** intelligent tutoring method and system.

Claim 45's "(b) a memory that stores information under the control of the processor;" is anticipated by Bloom et al., col. 2, lines 50-55, where it recites:

> Accordingly, it is the principle object of the present invention to provide an improved **computer based** intelligent tutoring method and system.

Claim 45's "(c) logic that presents information indicative of a goal, the information identifying training that is associated with the goal;" is anticipated by Bloom et al., col. 6, lines 40-67, where it recites:

> In such a fashion, the method and system of the present invention are consistent with several features of the minimalist approach to training and learning. Specifically, the present invention employs task-based training, and allow trainees to start immediately on meaningful and realistic job tasks in any order. Moreover, the present invention keeps the amount of passive instruction to a minimum. Only prerequisite information that cannot be conveyed to the trainee during active contact rehearsal is conveyed through guide (92). In addition, information in guide (92) is presented in interactive, multimedia formats to increase the level of involvement by the trainee. Finally, the present invention contains explicit training on errors and error recovery to support the recognition and recovery from error, thereby making the learning materials more robust and complete, and training learners in error recovery skills.

Claim 45's "(d) logic that integrates information that motivates accomplishment of the goal" is anticipated by Bloom et al., col. 15, lines 30-60, where it recites:

> Still referring to FIG. 7, the discourse grammar (144) then maps onto sets of situation-action rules (146). Situation-action rules (146) are the individual transitions in the discourse grammar (144) describing actions to be taken in response to given situations. Situations can be either customer statements, requests, or questions, or service order software output or configurations. Actions can be either responses by the CSR to customer statements or to application information, commands or data entered into the application by the CSR, or actions focused around information processing and decision making, as previously described.
>
> The next level of hierarchy (140) is conversations (148). Conversations (148) are syntactically correct sequences through discourse grammar (144) made up of sequences of situation-action rules (146). Each

> abstract situation and action in a conversation sequence is instantiated with specific information in the form of application commands or information, or text with accompanying audio. Conversations (148) are grouped together to reflect different types of scenarios that could occur between a caller and a CSR. Branches within conversations (148) are based on customer information. Situation-action rules (146) that are conceptually related map onto discourse grammar (144) nodes. These nodes are reusable portions of conversations that can appear in several different conversation scenarios. Ultimately, a specification of each of these layers defines a course, such as VMS. A course has a title, list of topics, a list of grammars, a list of activities (situations or actions), a list of conversations (subsuming text, audio, and application communication) and a list of application specifications.

It is further anticipated by Bloom et al., col. 16, lines 15-30, where it recites:

> Referring now to FIG. 8, an example of a subset of the discourse grammar representation is shown, denoted generally by reference numeral 160. Conversations or scenarios can be constructed by combining all of the individual nodes along any one branch (from left to right) of the discourse grammar. For example, the scenario of servicing a customer's direct request for VMS (162) could involve some or all of the following: opening (164), legal guidelines (166), check availability (168), verify class of service (170), verify feature compatibility (172), ring options (174), due date (176), and close contact (178). The specific sub-topics employed would depend upon "customer" responses or constraints. That is, if the service is not available in the customer's area, the scenario would contain only opening (164), legal guidelines (166), check availability (168), and close contact (178).

It is further anticipated by Bloom et al., col. 17, lines 25-45, where it recites:

> An application description preferably has a name, a list of screen definitions, the initial screen of the application, and a description of how to jump from screen-to-screen. An application screen describes one screen that has a name and a list of fields that make up that screen. The screen item describes an item of the screen and has a name by which it can be referred, a position and a size within the screen, and a default value. The value can be defined as a string or dynamically by a function. For example, a field showing the date or time would refer to a function, which supplies those strings. A screen label is a screen item which is not editable by the user. A screen field is a screen item which is editable by the user. An application field entry defines how items in the application should be filled out. This structure is to communicate commands when running a conversation, and to define how conversation

> specifics should be filled in. A screen sequence defines a sequence in which the screens are shown, and has a predicate which is applied to any conversation name to determine whether the sequence is appropriate for that conversation.

Claim 45's "(e) logic that queries a user for answers to one or more questions based on more or more learning objectives of the presentation using a simulated human conversation; and" is anticipated by Bloom et al., col. 16, lines 59-67, where it recites:

> In the situation-action rules (146) level, an activity preferably has a name by which it can be referenced within an RTN, a text that describes the activity, the grammars within which it is used, the topics that it relates to, a comment from the author of the material, instances from the conversations shown as text, instances from the conversations referring to audio files, and a reference to the student's encounters with this activity. An action has feedback which can be presented to the student as a hint, and false responses which are actions to present as false distractors when giving a **multiple choice question**. An application action is an action describing interaction with application software.

Claim 45's "(f) logic that monitors progress toward the goal and provides feedback that further motivates accomplishment of the goal." is anticipated by Bloom et al., col. 7, lines 20-30, where it recites:

> Referring now to FIGS. 4 and 5, the function of exercise customer interaction skills (94) employs rehearsing conversations (116) or examining contact flow (118) as two different ways of rehearsing customer contacts. During rehearse conversation (116), tutor (112) supports trainees working through customer contacts representative of those faced on the job. As trainees work through the contacts, immediate feedback and hints (120) are available when trainees have difficulties. Moreover, at the end of each contact rehearsal, trainees are provided summary feedback (122) including assessment of their current knowledge state.

Claim 54

Claim 54's "(a) presenting information indicative of a goal, the information identifying training that is associated with the goal;" is anticipated by Bloom et al., col. 6, lines 40-67, where it recites:

> In such a fashion, the method and system of the present invention are consistent with several features of the minimalist approach to training and learning. Specifically, the present invention employs task-based training, and allow trainees to start immediately on meaningful and realistic job tasks in any order. Moreover, the present invention keeps the amount of passive instruction to a minimum. Only prerequisite information that cannot be conveyed to the trainee during active contact rehearsal is conveyed through guide (92). In addition, information in guide (92) is presented in interactive, multimedia formats to increase the level of involvement by the trainee. Finally, the present invention contains explicit training on errors and error recovery to support the recognition and recovery from error, thereby making the learning materials more robust and complete, and training learners in error recovery skills.

Claim 54's "(b) integrating information that motivates accomplishment of the goal; and" is anticipated by Bloom et al., col. 15, lines 30-60, where it recites:

> Still referring to FIG. 7, the discourse grammar (144) then maps onto sets of situation-action rules (146). Situation-action rules (146) are the individual transitions in the discourse grammar (144) describing actions to be taken in response to given situations. Situations can be either customer statements, requests, or questions, or service order software output or configurations. Actions can be either responses by the CSR to customer statements or to application information, commands or data entered into the application by the CSR, or actions focused around information processing and decision making, as previously described.
>
> The next level of hierarchy (140) is conversations (148). Conversations (148) are syntactically correct sequences through discourse grammar (144) made up of sequences of situation-action rules (146). Each abstract situation and action in a conversation sequence is instantiated with specific information in the form of application commands or information, or text with accompanying audio. Conversations (148) are grouped together to reflect different types of scenarios that could occur between a caller and a CSR. Branches within conversations (148) are based on customer information. Situation-action rules (146) that are conceptually related map onto discourse grammar (144) nodes. These

> nodes are reusable portions of conversations that can appear in several different conversation scenarios. Ultimately, a specification of each of these layers defines a course, such as VMS. A course has a title, list of topics, a list of grammars, a list of activities (situations or actions), a list of conversations (subsuming text, audio, and application communication) and a list of application specifications.

It is further anticipated by Bloom et al., col. 16, lines 15-30, where it recites:

> Referring now to FIG. 8, an example of a subset of the discourse grammar representation is shown, denoted generally by reference numeral 160. Conversations or scenarios can be constructed by combining all of the individual nodes along any one branch (from left to right) of the discourse grammar. For example, the scenario of servicing a customer's direct request for VMS (162) could involve some or all of the following: opening (164), legal guidelines (166), check availability (168), verify class of service (170), verify feature compatibility (172), ring options (174), due date (176), and close contact (178). The specific sub-topics employed would depend upon "customer" responses or constraints. That is, if the service is not available in the customer's area, the scenario would contain only opening (164), legal guidelines (166), check availability (168), and close contact (178).

It is further anticipated by Bloom et al., col. 17, lines 25-45, where it recites:

> An application description preferably has a name, a list of screen definitions, the initial screen of the application, and a description of how to jump from screen-to-screen. An application screen describes one screen that has a name and a list of fields that make up that screen. The screen item describes an item of the screen and has a name by which it can be referred, a position and a size within the screen, and a default value. The value can be defined as a string or dynamically by a function. For example, a field showing the date or time would refer to a function, which supplies those strings. A screen label is a screen item which is not editable by the user. A screen field is a screen item which is editable by the user. An application field entry defines how items in the application should be filled out. This structure is to communicate commands when running a conversation, and to define how conversation specifics should be filled in. A screen sequence defines a sequence in which the screens are shown, and has a predicate which is applied to any conversation name to determine whether the sequence is appropriate for that conversation.

Claim 54's "(c) monitoring progress toward the goal and providing feedback that further motivates accomplishment of the goal." is anticipated by Bloom et al., col. 7, lines 20-30, where it recites:

> Referring now to FIGS. 4 and 5, the function of exercise customer interaction skills (94) employs rehearsing conversations (116) or examining contact flow (118) as two different ways of rehearsing customer contacts. During rehearse conversation (116), tutor (112) supports trainees working through customer contacts representative of those faced on the job. As trainees work through the contacts, immediate feedback and hints (120) are available when trainees have difficulties. Moreover, at the end of each contact rehearsal, trainees are provided summary feedback (122) including assessment of their current knowledge state.

Claim 63

Claim 63's "(a) a processor;" is anticipated by Bloom et al., col. 2, lines 50-55, where it recites:

> Accordingly, it is the principle object of the present invention to provide an improved **computer based** intelligent tutoring method and system.

Claim 63's "(b) a memory that stores information under the control of the processor;" is anticipated by Bloom et al., col. 2, lines 50-55, where it recites:

> Accordingly, it is the principle object of the present invention to provide an improved **computer based** intelligent tutoring method and system.

Claim 63's "(c) logic that presents information indicative of a goal, the information identifying training that is associated with the goal;" is anticipated by Bloom et al., col. 6, lines 40-67, where it recites:

> In such a fashion, the method and system of the present invention are consistent with several features of the minimalist approach to training and learning. Specifically, the present invention employs task-based training, and allow trainees to start immediately on meaningful and realistic job tasks in any order. Moreover, the present invention keeps the amount of passive instruction to a minimum. Only prerequisite information that cannot be conveyed to the trainee during active contact rehearsal is conveyed through guide (92). In addition, information in guide (92) is presented in interactive, multimedia formats to increase the level of involvement by the trainee. Finally, the present invention contains explicit training on errors and error recovery to support the recognition and recovery from error, thereby making the learning materials more robust and complete, and training learners in error recovery skills.

Claim 63's "(d) logic that integrates information that motivates accomplishment of the goal; and" is anticipated by Bloom et al., col. 15, lines 30-60, where it recites:

> Still referring to FIG. 7, the discourse grammar (144) then maps onto sets of situation-action rules (146). Situation-action rules (146) are the individual transitions in the discourse grammar (144) describing actions to be taken in response to given situations. Situations can be either customer statements, requests, or questions, or service order software output or configurations. Actions can be either responses by the CSR to customer statements or to application information, commands or data entered into the application by the CSR, or actions focused around information processing and decision making, as previously described.
>
> The next level of hierarchy (140) is conversations (148). Conversations (148) are syntactically correct sequences through discourse grammar (144) made up of sequences of situation-action rules (146). Each abstract situation and action in a conversation sequence is instantiated with specific information in the form of application commands or information, or text with accompanying audio. Conversations (148) are grouped together to reflect different types of scenarios that could occur between a caller and a CSR. Branches within conversations (148) are based on customer information. Situation-action rules (146) that are conceptually related map onto discourse grammar (144) nodes. These

> nodes are reusable portions of conversations that can appear in several different conversation scenarios. Ultimately, a specification of each of these layers defines a course, such as VMS. A course has a title, list of topics, a list of grammars, a list of activities (situations or actions), a list of conversations (subsuming text, audio, and application communication) and a list of application specifications.

It is further anticipated by Bloom et al., col. 16, lines 15-30, where it recites:

> Referring now to FIG. 8, an example of a subset of the discourse grammar representation is shown, denoted generally by reference numeral 160. Conversations or scenarios can be constructed by combining all of the individual nodes along any one branch (from left to right) of the discourse grammar. For example, the scenario of servicing a customer's direct request for VMS (162) could involve some or all of the following: opening (164), legal guidelines (166), check availability (168), verify class of service (170), verify feature compatibility (172), ring options (174), due date (176), and close contact (178). The specific sub-topics employed would depend upon "customer" responses or constraints. That is, if the service is not available in the customer's area, the scenario would contain only opening (164), legal guidelines (166), check availability (168), and close contact (178).

It is further anticipated by Bloom et al., col. 17, lines 25-45, where it recites:

> An application description preferably has a name, a list of screen definitions, the initial screen of the application, and a description of how to jump from screen-to-screen. An application screen describes one screen that has a name and a list of fields that make up that screen. The screen item describes an item of the screen and has a name by which it can be referred, a position and a size within the screen, and a default value. The value can be defined as a string or dynamically by a function. For example, a field showing the date or time would refer to a function, which supplies those strings. A screen label is a screen item which is not editable by the user. A screen field is a screen item which is editable by the user. An application field entry defines how items in the application should be filled out. This structure is to communicate commands when running a conversation, and to define how conversation specifics should be filled in. A screen sequence defines a sequence in which the screens are shown, and has a predicate which is applied to any conversation name to determine whether the sequence is appropriate for that conversation.

Claim 63's "(e) monitoring progress toward the goal and providing feedback that further motivates accomplishment of the goal." is anticipated by Bloom et al., col. 7, lines 20-30, where it recites:

> Referring now to FIGS. 4 and 5, the function of exercise customer interaction skills (94) employs rehearsing conversations (116) or examining contact flow (118) as two different ways of rehearsing customer contacts. During rehearse conversation (116), tutor (112) supports trainees working through customer contacts representative of those faced on the job. As trainees work through the contacts, immediate feedback and hints (120) are available when trainees have difficulties. Moreover, at the end of each contact rehearsal, trainees are provided summary feedback (122) including assessment of their current knowledge state.

Claim 72

Claim 72's "(a) receiving indicia representative of a goal, the indicia identifyina training that is associated with the store goal;" is anticipated by Bloom et al., col. 6, lines 40-67, where it recites:

> In such a fashion, the method and system of the present invention are consistent with several features of the minimalist approach to training and learning. Specifically, the present invention employs task-based training, and allow trainees to start immediately on meaningful and realistic job tasks in any order. Moreover, the present invention keeps the amount of passive instruction to a minimum. Only prerequisite information that cannot be conveyed to the trainee during active contact rehearsal is conveyed through guide (92). In addition, information in guide (92) is presented in interactive, multimedia formats to increase the level of involvement by the trainee. Finally, the present invention contains explicit training on errors and error recovery to support the recognition and recovery from error, thereby making the learning materials more robust and complete, and training learners in error recovery skills.

Claim 72's "(b) integrating examples into the presentation to provide assistance with achieving the goal" is anticipated by Bloom et al., col. 15, lines 30-60, where it recites:

> Still referring to FIG. 7, the discourse grammar (144) then maps onto sets of situation-action rules (146). Situation-action rules (146) are the individual transitions in the discourse grammar (144) describing actions to be taken in response to given situations. Situations can be either customer statements, requests, or questions, or service order software output or configurations. Actions can be either responses by the CSR to customer statements or to application information, commands or data entered into the application by the CSR, or actions focused around information processing and decision making, as previously described.
>
> The next level of hierarchy (140) is conversations (148). Conversations (148) are syntactically correct sequences through discourse grammar (144) made up of sequences of situation-action rules (146). Each abstract situation and action in a conversation sequence is instantiated with specific information in the form of application commands or information, or text with accompanying audio. Conversations (148) are grouped together to reflect different types of scenarios that could occur between a caller and a CSR. Branches within conversations (148) are based on customer information. Situation-action rules (146) that are conceptually related map onto discourse grammar (144) nodes. These nodes are reusable portions of conversations that can appear in several different conversation scenarios. Ultimately, a specification of each of these layers defines a course, such as VMS. A course has a title, list of topics, a list of grammars, a list of activities (situations or actions), a list of conversations (subsuming text, audio, and application communication) and a list of application specifications.

It is further anticipated by Bloom et al., col. 16, lines 15-30, where it recites:

> Referring now to FIG. 8, an example of a subset of the discourse grammar representation is shown, denoted generally by reference numeral 160. Conversations or scenarios can be constructed by combining all of the individual nodes along any one branch (from left to right) of the discourse grammar. For example, the scenario of servicing a customer's direct request for VMS (162) could involve some or all of the following: opening (164), legal guidelines (166), check availability (168), verify class of service (170), verify feature compatibility (172), ring options (174), due date (176), and close contact (178). The specific sub-topics employed would depend upon "customer" responses or

> constraints. That is, if the service is not available in the customer's area, the scenario would contain only opening (164), legal guidelines (166), check availability (168), and close contact (178).

It is further anticipated by Bloom et al., col. 17, lines 25-45, where it recites:

> An application description preferably has a name, a list of screen definitions, the initial screen of the application, and a description of how to jump from screen-to-screen. An application screen describes one screen that has a name and a list of fields that make up that screen. The screen item describes an item of the screen and has a name by which it can be referred, a position and a size within the screen, and a default value. The value can be defined as a string or dynamically by a function. For example, a field showing the date or time would refer to a function, which supplies those strings. A screen label is a screen item which is not editable by the user. A screen field is a screen item which is editable by the user. An application field entry defines how items in the application should be filled out. This structure is to communicate commands when running a conversation, and to define how conversation specifics should be filled in. A screen sequence defines a sequence in which the screens are shown, and has a predicate which is applied to any conversation name to determine whether the sequence is appropriate for that conversation.

Claim 72's "(c) monitoring progress of a student toward the goal;" is anticipated by Bloom et al., col. 7, lines 20-30, where it recites:

> Referring now to FIGS. 4 and 5, the function of exercise customer interaction skills (94) employs rehearsing conversations (116) or examining contact flow (118) as two different ways of rehearsing customer contacts. During rehearse conversation (116), tutor (112) supports trainees working through customer contacts representative of those faced on the job. As trainees work through the contacts, immediate feedback and hints (120) are available when trainees have difficulties. Moreover, at the end of each contact rehearsal, trainees are provided summary feedback (122) including assessment of their current knowledge state.

Claim 72's "(d) providing feedback that further assists the student in accomplishing the goal; and" is anticipated by Bloom et al., col. 7, lines 20-30, where it recites:

> Referring now to FIGS. 4 and 5, the function of exercise customer interaction skills (94) employs rehearsing conversations (116) or examining contact flow (118) as two different ways of rehearsing customer contacts. During rehearse conversation (116), tutor (112) supports trainees working through customer contacts representative of those faced on the job. As trainees work through the contacts, immediate feedback and hints (120) are available when trainees have difficulties. Moreover, at the end of each contact rehearsal, trainees are provided summary feedback (122) including assessment of their current knowledge state.

It is further anticipated by Bloom et al., col. 23, lines 30-45, where it recites:

> At the end of each contact rehearsal or examination, the method and system of the present invention provide for several different types of feedback, selectable by the trainee. This approach includes a view summary feedback type where trainees can view a brief, digitized video of an expert CSR summarizing the salient points and features of the previous contact. A repeat conversation feedback type allows the trainee to redo the previous contact using the same or different instruction style settings for dialog and application interactions. With a selective review feedback type, the trainee can listen to all or part of the contact just practiced, reviewing and comparing their recorded responses to an expert recorded response. Finally, with a summarized progress feedback type, the trainee can view an assessment, including any changes, of the trainee's proficiency with regard to various topics.

Claim 72's "(e) providing information to assist with a next step in achieving the goal." is anticipated by Bloom et al., col. 7, lines 20-30, where it recites:

> Referring now to FIGS. 4 and 5, the function of exercise customer interaction skills (94) employs rehearsing conversations (116) or examining contact flow (118) as two different ways of rehearsing customer contacts. During rehearse conversation (116), tutor (112)

> supports trainees working through customer contacts representative of those faced on the job. As trainees work through the contacts, immediate feedback and hints (120) are available when trainees have difficulties. Moreover, at the end of each contact rehearsal, trainees are provided summary feedback (122) including assessment of their current knowledge state.

It is further anticipated by Bloom et al., col. 23, lines 30-45, where it recites:

> At the end of each contact rehearsal or examination, the method and system of the present invention provide for several different types of feedback, selectable by the trainee. This approach includes a view summary feedback type where trainees can view a brief, digitized video of an expert CSR summarizing the salient points and features of the previous contact. A repeat conversation feedback type allows the trainee to redo the previous contact using the same or different instruction style settings for dialog and application interactions. With a selective review feedback type, the trainee can listen to all or part of the contact just practiced, reviewing and comparing their recorded responses to an expert recorded response. Finally, with a summarized progress feedback type, the trainee can view an assessment, including any changes, of the trainee's proficiency with regard to various topics.

Claim 81

Claim 81's "(a) a processor;" is anticipated by Bloom et al., col. 2, lines 50-55, where it recites:

> Accordingly, it is the principle object of the present invention to provide an improved **computer based** intelligent tutoring method and system.

Claim 81's "(b) a memory that stores information under the control of the processor;" is anticipated by Bloom et al., col. 2, lines 50-55, where it recites:

> Accordingly, it is the principle object of the present invention to provide an improved **computer based** intelligent tutoring method and system.

Claim 81's "(c) logic that integrates examples into the presentation to provide assistance with achieving the goal, the examples providing training that is associated with the goal" is anticipated by Bloom et al., col. 15, lines 30-60, where it recites:

> Still referring to FIG. 7, the discourse grammar (144) then maps onto sets of situation-action rules (146). Situation-action rules (146) are the individual transitions in the discourse grammar (144) describing actions to be taken in response to given situations. Situations can be either customer statements, requests, or questions, or service order software output or configurations. Actions can be either responses by the CSR to customer statements or to application information, commands or data entered into the application by the CSR, or actions focused around information processing and decision making, as previously described.
>
> The next level of hierarchy (140) is conversations (148). Conversations (148) are syntactically correct sequences through discourse grammar (144) made up of sequences of situation-action rules (146). Each abstract situation and action in a conversation sequence is instantiated with specific information in the form of application commands or information, or text with accompanying audio. Conversations (148) are grouped together to reflect different types of scenarios that could occur between a caller and a CSR. Branches within conversations (148) are based on customer information. Situation-action rules (146) that are conceptually related map onto discourse grammar (144) nodes. These nodes are reusable portions of conversations that can appear in several different conversation scenarios. Ultimately, a specification of each of these layers defines a course, such as VMS. A course has a title, list of topics, a list of grammars, a list of activities (situations or actions), a list of conversations (subsuming text, audio, and application communication) and a list of application specifications.

It is further anticipated by Bloom et al., col. 16, lines 15-30, where it recites:

> Referring now to FIG. 8, an example of a subset of the discourse grammar representation is shown, denoted generally by reference numeral 160. Conversations or scenarios can be constructed by combining all of the individual nodes along any one branch (from left to right) of the discourse grammar. For example, the scenario of servicing a customer's direct request for VMS (162) could involve some or all of the following: opening (164), legal guidelines (166), check availability (168), verify class of service (170), verify feature compatibility (172), ring options (174), due date (176), and close contact (178). The specific sub-topics employed would depend upon "customer" responses or

> constraints. That is, if the service is not available in the customer's area, the scenario would contain only opening (164), legal guidelines (166), check availability (168), and close contact (178).

It is further anticipated by Bloom et al., col. 17, lines 25-45, where it recites:

> An application description preferably has a name, a list of screen definitions, the initial screen of the application, and a description of how to jump from screen-to-screen. An application screen describes one screen that has a name and a list of fields that make up that screen. The screen item describes an item of the screen and has a name by which it can be referred, a position and a size within the screen, and a default value. The value can be defined as a string or dynamically by a function. For example, a field showing the date or time would refer to a function, which supplies those strings. A screen label is a screen item which is not editable by the user. A screen field is a screen item which is editable by the user. An application field entry defines how items in the application should be filled out. This structure is to communicate commands when running a conversation, and to define how conversation specifics should be filled in. A screen sequence defines a sequence in which the screens are shown, and has a predicate which is applied to any conversation name to determine whether the sequence is appropriate for that conversation.

Claim 81's "(d) logic that monitors progress of a student toward the goal and provides feedback that further provides the student assistance in accomplishing the goal; and" is anticipated by Bloom et al., col. 7, lines 20-30, where it recites:

> Referring now to FIGS. 4 and 5, the function of exercise customer interaction skills (94) employs rehearsing conversations (116) or examining contact flow (118) as two different ways of rehearsing customer contacts. During rehearse conversation (116), tutor (112) supports trainees working through customer contacts representative of those faced on the job. As trainees work through the contacts, immediate feedback and hints (120) are available when trainees have difficulties. Moreover, at the end of each contact rehearsal, trainees are provided summary feedback (122) including assessment of their current knowledge state.

Claim 81's "(e) logic that provides information to assist with a next step in achieving the goal." is anticipated by Bloom et al., col. 7, lines 20-30, where it recites:

> Referring now to FIGS. 4 and 5, the function of exercise customer interaction skills (94) employs rehearsing conversations (116) or examining contact flow (118) as two different ways of rehearsing customer contacts. During rehearse conversation (116), tutor (112) supports trainees working through customer contacts representative of those faced on the job. As trainees work through the contacts, immediate feedback and hints (120) are available when trainees have difficulties. Moreover, at the end of each contact rehearsal, trainees are provided summary feedback (122) including assessment of their current knowledge state.

It is further anticipated by Bloom et al., col. 23, lines 30-45, where it recites:

> At the end of each contact rehearsal or examination, the method and system of the present invention provide for several different types of feedback, selectable by the trainee. This approach includes a view summary feedback type where trainees can view a brief, digitized video of an expert CSR summarizing the salient points and features of the previous contact. A repeat conversation feedback type allows the trainee to redo the previous contact using the same or different instruction style settings for dialog and application interactions. With a selective review feedback type, the trainee can listen to all or part of the contact just practiced, reviewing and comparing their recorded responses to an expert recorded response. Finally, with a summarized progress feedback type, the trainee can view an assessment, including any changes, of the trainee's proficiency with regard to various topics.

Response to Arguments

Applicant's arguments filed 05/20/2004 have been fully considered but they are not persuasive. Specifically:

Argument 1

> The Office Action also alleges that claims 1-89 "take several abstract ideas (i.e., 'indicia representative of a store goal' in the abstract) and manipulate them together adding nothing to the basic equation." The Applicant has amended claims 1, 10, 19, 28, 36, 45, 54, 63, 72, and 81 to clarify the claimed invention. Claim 1 has been amended to include the feature of "receiving an indicia representative of a store goal, the indicia identifying training that is associated with the store goal". (Emphasis added.) For example, the specification, as originally filed, discloses (Page 1, line 4 1 to page 2, line 3.): A store management tutorial system is enabled for providing active coaching on aspects of inventory management, stocking, advertising, return on revenue, markdown, assortment strategy and other aspects of retail management. Techniques for process sensitive help are also integrated into the system to provide contextual examples to guide a user in performing a task.
>
> As amended, the claim limitations of claim 1 are useful, concrete, and tangible. Similarly, claim 10 has been amended to include the feature of "logic that receives indicia representative of a store goal, the indicia identifying training that is associated with the store goal". Claim 19 has been amended to include the feature of "receiving information indicative of a goal, the information identifying training that is associated with the goal". Claim 28 has been amended to include the feature of "logic that receives information indicative of a goal, the information identifying training that is associated with the goal". Claim 36 has been amended to include the feature of "presenting information indicative of a goal, the information identifying training that is associated with the goal". Claim 45 has been amended to include the feature of "logic that presents information indicative of a goal, the information identifying training that is associated with the goal". Claim 54 has been amended to include the feature of "presenting information indicative of a goal, the information identifying training that is associated with the goal". Claim 63 has been amended to include the feature of "logic that presents information indicative of a goal, the information identifying training that is associated with the goal". Claim 72 has been amended to include the feature of "receiving indicia representative of a goal, the indicia identifying training that is associated with the store goal". Claim 8 1 has been amended to include the feature of "logic that integrates examples into the presentation to provide assistance with achieving the goal, the examples providing training that is associated with the goal". The remaining claims depend from independent claims 1, 10, 19, 28, 36, 45, 54, 63, 72, and 81, and thus include features that are useful, concrete, and tangible. Because claims 1-89 include features that are practical, the Applicant requests reconsideration of claims 1-89.

Applicant has not specified what the store goal actually is. It could be something purely mathematical, or nonrepeatable. Applicant's argument that his claims can be applied to "inventory management, stocking, advertising, return on revenue, markdown,

assortment strategy and **other aspects of retail management"** is insufficient to actually limit his claims to such applications. Those supposed "limitations" are only subsets of the actual matter limited by the claims. An argument using erroneously limiting subsets of the actual metes and bounds of the claims is not sufficient to limit the claims to statutory matter because the "claims must be given their broadest reasonable interpretation." See, MPEP 2111 (emphasis added.)

Applicant based his argument on the narrower subsets of the actually claimed matter, thereby presenting erroneously narrow claim interpretations that appear more acceptable than the ones actually drafted into the claims.

Applicant must expressly present limitations that, in their broadest reasonable interpretation, denote statutory limitations to a practical application.

Examiner cannot even rely on In re Festo's "argument-based estoppel" to limit the claims to the matter in Applicant's argument, since such doctrine of equivalents issues are actually decided later in Court after an application has been allowed and later contested. Accordingly, Applicant's arguments cannot, at this early stage, be presumed by Examiner to be so limiting.

Examiner reads the claims as a whole to carefully search for actual limitations to practical applications and finds none. It is Examiner's opinion that the claims are devoid of statutory material. Having been given ample opportunity to respond by amendment, Applicant has presented no other statutory limitations to circumscribe the metes and bounds of the claims sufficiently to change this assessment.

Accordingly, Applicant has failed to carry his burden of showing how the claims are in any way statutory. On this basis, Examiner finds Applicant's argument to be unpersuasive and the rejections STAND.

Argument 2

> Claims 1-89 are rejected by the Office Action under 35 U.S.C. §112, first paragraph because "current case law require a rejection if a 101 rejection is given". Because of the claim amendments, as discussed above, the Applicant requests reconsideration of claims 1-89.

The §101 rejections of the previous action are not over come, so this argument by Applicant is moot. The double patenting rejection is withdrawn in this action.

Conclusion

The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. Specifically:

A. McIlwaine et al. (U.S. Patent Number 6,301,573 B1; dated 09 OCT 2001; class 706; subclass 061) discloses a recurrent training system.

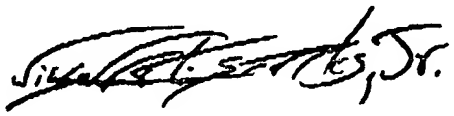
B. Johnson et al. (U.S. Patent Number 6,067,525 A; dated 23 MAY 2000; class 705; subclass 010) discloses an integrated computerized sales force automation system.

C. Strickland et al. (U.S. Patent Number 5,956,024 A; dated 21 SEP 1999; class 715; subclass 717) discloses a graphical user interface for customer service representatives for subscriber management systems.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Wilbert L. Starks, Jr. whose telephone number is (571) 272-3691.

Alternatively, inquiries may be directed to the following:

S. P. E. David Vincent	**(571) 272-3080**
Official (FAX)	**(571) 273-8300**



Wilbert L. Starks, Jr.
Primary Examiner
Art Unit 2129

WLS

18 October 2006